

Listing of Claims

This listing of claims will replace all prior versions of claims and listings of claims in the application:

1.-25. (Canceled)

26. (Previously Presented) An apparatus for mixing a substance in a sealed container with a liquid, the container being positioned in a container receptacle, the container receptacle configured to couple with a port assembly to permit liquid to enter the container through the port assembly, the apparatus comprising:

 a container spiking assembly comprising a movable member adapted to move the container receptacle toward the port assembly;

 a container spiking assembly controller in communication with the container spiking assembly for controlling coupling of the container receptacle with the port assembly; and

 a liquid controller for controlling the flow of the liquid through the port assembly into the container to produce a combined substance and liquid, wherein:

 the container spiking assembly controller is configured to control the movement of the movable member of the container spiking assembly to couple the container receptacle with the port assembly while the port assembly is immobilized relative to the container receptacle.

27. (Previously Presented) The apparatus as defined by claim 26 wherein the liquid controller also controls the flow of combined substance and liquid from the container.

28. (Canceled)

29. (Previously Presented) The apparatus as defined by claim 26 wherein the container spiking assembly controller includes logic for determining the relative locations of the container

receptacle and the port assembly, using input from at least one sensor associated with the container spiking assembly.

30. (Previously Presented) The apparatus as defined by claim 26 wherein the container spiking assembly further comprises a cover capable of being in either an open position or a closed position, the cover securing the container receptacle and port assembly within the container spiking assembly when in the closed position, and the container spiking assembly controller having logic for determining if the cover is in the closed position.

31. (Previously Presented) The apparatus as defined by claim 30 wherein the container spiking assembly controller includes logic to direct the container receptacle to couple with the port assembly after detecting that the cover is in the closed position.

32. (Original) The apparatus as defined by claim 30 further including a cover lock that prevents the cover from being moved from the closed position while the liquid is being received by the container.

33. (Previously Presented) The apparatus as defined by claim 26 further including a pneumatically controlled member within the container spiking assembly, the pneumatically controlled member capable of contributing to the coupling of the container receptacle with the port assembly in response to input from the container spiking assembly controller.

34. (Previously Presented) The apparatus as defined by claim 26 wherein the liquid controller includes stored commands for directing the delivery of a predetermined amount of liquid to the container via the port assembly.

35. (Previously Presented) The apparatus as defined by claim 26 further comprising a housing containing at least one of the container spiking assembly controller and the liquid controller.

36. (Previously Presented) The apparatus as defined by claim 35 wherein the container spiking assembly at least partially extends outwardly from the housing.

37. (Previously Presented) The apparatus as defined by claim 26 further comprising a sensor within the container spiking assembly for detecting the location of the container relative to the port assembly.

38. (Previously Presented) The apparatus as defined by claim 26 wherein the container spiking assembly is configured to contain the container receptacle in a single orientation.

39. (Original) The apparatus as defined by claim 26 further comprising a set of valves controlled by the liquid controller to control the flow of liquid into the container.

40. (Previously Presented) The apparatus as defined by claim 26 further comprising a pump chamber used by the liquid controller to measure the volume of the liquid to be directed to the container.

41. (Original) The apparatus as defined by claim 26 wherein the substance is a caustic solution.

42. (Original) The apparatus as defined by claim 26 wherein the substance is an anti-pathogen compound.

43. (Canceled)

44. (Previously Presented) The apparatus as defined by claim 26, wherein the container receptacle includes a first locking feature that interfaces with a corresponding second locking feature of the port assembly.

45. (Previously Presented) The apparatus as defined by claim 44, wherein the first locking

feature comprises a plurality of engagement teeth, and wherein the second locking feature engages one or more of the plurality of engagement teeth.

46. (Previously Presented) The apparatus as defined by claim 45, wherein the container receptacle includes a plurality of tabs, each tab having engagement teeth, wherein the engagement teeth on adjacent tabs are staggered relative to one another.

47. (Previously Presented) The apparatus as defined by claim 46, wherein the engagement teeth are staggered by approximately half the height of one of the engagement teeth.

48. (Previously Presented) The apparatus defined by claim 37, wherein the container receptacle comprises at least one raised switch engagement feature on an outer surface of the container receptacle for operating a sensor within the container spiking assembly.

49. (Previously Presented) An apparatus for mixing a substance in a sealed container with a liquid, the container being positioned in a container receptacle, the container receptacle configured to couple with a port assembly to permit liquid to enter the container through the port assembly the apparatus comprising:

positioning means for moving the container receptacle toward the port assembly;

coupling means for controlling coupling of the container receptacle with the port assembly; and

flow means for controlling the flow of the liquid into the container to produce a combined substance and liquid, wherein:

the positioning means is configured for movement of the container receptacle toward the port assembly while the port assembly is immobilized relative to the container receptacle.

50. (Previously Presented) The apparatus as defined by claim 49 wherein the flow means also controls the flow of combined substance and liquid from the container.

51. (Canceled)

52. (Previously Presented) The apparatus as defined by claim 49 wherein the coupling means includes means for determining the relative locations of the container receptacle and the port assembly, using input from at least one sensor associated with the positioning means.

53. (Previously Presented) The apparatus as defined by claim 49 wherein the positioning means includes a cover capable of being in either an open position or a closed position, the cover securing the container receptacle and port assembly within the positioning means when in the closed position, and the coupling means having means for determining if the cover is in the closed position.

54. (Previously presented) The apparatus as defined by claim 53 wherein the coupling means includes logic to direct the container receptacle to couple with the port assembly after detecting that the cover is in the closed position.

55. (Original) The apparatus as defined by claim 53 further including a cover lock that prevents the cover from being moved from the closed position while the liquid is being received by the container.

56. (Previously Presented) The apparatus as defined by claim 49 further including a pneumatically controlled means within the positioning means, the pneumatically controlled means capable of contributing to the coupling of the container receptacle with the port assembly in response to input from the coupling means.

57. (Previously Presented) The apparatus as defined by claim 49 wherein the flow means includes means for controlling the delivery of a predetermined amount of liquid to the container via the port assembly.

58. (Original) The apparatus as defined by claim 49 further comprising a housing containing at least one of the coupling means and the flow means.

59. (Previously Presented) The apparatus as defined by claim 58 wherein the positioning means at least partially extends outwardly from the housing.

60. (Previously Presented) The apparatus as defined by claim 49 further comprising a means for detecting the location of the container relative to the port assembly.

61. (Previously Presented) The apparatus as defined by claim 49 wherein the positioning means is configured to contain the container receptacle in a single orientation.

62. (Original) The apparatus as defined by claim 49 further comprising a set of valves controlled by the flow means to control the flow of liquid into the container.

63. (Original) The apparatus as defined by claim 49 further comprising a means for measuring the volume of the liquid to be directed to the container, the measuring means being used by the flow means.

64. (Original) The apparatus as defined by claim 49 wherein the substance is a caustic substance.

65. (Original) The apparatus as defined by claim 49 wherein the substance is an anti-pathogen compound.

66. (Canceled)

67. (Previously Presented) The apparatus as defined by claim 26 wherein the container spiking assembly has a cover for securing the port assembly within the container spiking assembly, and wherein the container spiking assembly controller is configured to control the movement of the

container within the container spiking assembly so as to connect the container with a fluid flow lumen of the port assembly.

68. (Previously Presented) The apparatus is defined by claim 33 further including an inflatable bladder in communication with the pneumatically controlled member for pneumatic control of the pneumatically controlled member in response to input from the container spiking assembly controller.

69. (Previously Presented) The apparatus as defined by claim 49 wherein the positioning means is cylindrical.

70. (Previously Presented) The apparatus as defined by claim 49 wherein positioning means includes means for securing the port assembly and wherein the coupling means includes means for moving the container so as to couple the container with a fluid flow lumen of the port assembly.

71. (Previously Presented) The apparatus as defined by claim 56 wherein the pneumatically controlled means includes a pneumatically controlled member and an inflatable means in communication with the pneumatically controlled member for pneumatic control of the pneumatically controlled member in response to input from the coupling means